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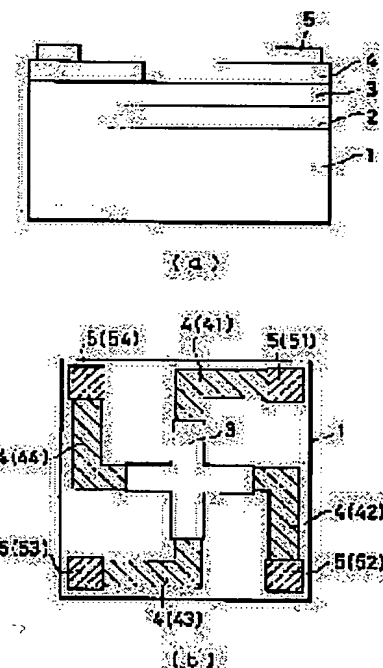
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(54) LAMINATED BODY CONTAINING COMPOUND SEMICONDUCTOR AND ITS MANUFACTURING METHOD

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a high sensitivity semiconductor sensor having a good temp. characteristic and its manufacturing method by manufacturing $\text{In}_x\text{Ga}_{1-x}\text{As}_y\text{Sb}_{1-y}$ ($0 < x \leq 1.0$, $0 \leq y \leq 1.0$) thin film with no disturbance in crystal lattice to be used as a sensor layer.

SOLUTION: A high-resistance first compound semiconductor layer 2, an $\text{In}_x\text{Ga}_{1-x}\text{As}_y\text{Sb}_{1-y}$ ($0 < x \leq 1.0$, $0 \leq y \leq 1.0$) layer formed on it, and an electrode formed on it constitute a semiconductor sensor. The first compound semiconductor has the same, or near, lattice constant as the crystal constituting a sensor layer 3, further, has a band gap energy larger than the crystal. The second compound semiconductor layer of the same characteristics as the first compound semiconductor layer 2 may be formed on the upper surface of the sensor layer 3. The semiconductor sensor provides, when used for a magnetic sensor, exceptionally high sensitivity and high output, while dependency of resistance value and Hall output on temperature is very small. Further, it can be used at high temperature with high reliability.



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